Blue Mountain supercomputer is decommissioned

by Jim Danneskiold

Blue Mountain, the Laboratory's first supercomputer for the National Nuclear Security Administration's Advanced Simulation and Computing program, was taken out of service earlier this month.

A major classified computing workhorse since it was commissioned in November 1998, Blue Mountain earned national attention for the Laboratory by enabling staff to run simulations of unprecedented size in support of national security programs.

"The Blue Mountain supercomputer was truly state of the art when it was installed in the first round of DOE's computer acquisitions for the ASCI program," said Chris Kemper, deputy division leader for the Computing, Communications and Networking (CCN) Division. With a peak speed of 3.1 trillion operations per second, Blue Mountain was the world's second fastest in June 1999 and remained among the 10 fastest supercomputers through November 2001.

During a three-day period during May 2000, more than 15,000 engineering simulations that required 10 hours each ran across 31 of Blue Mountain's 48 SGI Origin 2000 servers, thereby setting a world record by running 17.8 years of equivalent single-processor computing in just 72 hours.

Several newer and more powerful supercomputers, including ASCI Q and Lightning, now carry the Laboratory's classified computing workload.

Machine Theta, an unclassified system using similar technology, will be decommissioned at the same time. Users of Blue Mountain should move their work to the Q machine, while Machine Theta users should move their work to QSC, an unclassified Tru64 cluster from Hewlett-Packard Corp. Information and documentation about QSC and Q is available at *computing.lanl.gov* online. Training classes are available to help users with the transition.

"Although we build user environments to be similar across all the Laboratory's supercomputers, we recommend a hands-on training class for those making a transition to a new machine," said Harvey Wasserman, ASC training lead in High-Performance Computing Systems (CCN-7).

Blue Mountain originally consisted of 6,144 processors, although a portion of the machine was removed from service last May. Staff members in Networking Engineering (CCN-5) developed the technology for the Blue Mountain high-performance parallel interface, or HiPPI, which is the network that connects all of the processors to one another and which was the world's very first gigabit network. The HiPPI research was recognized with an R&D100 award as one of the top technical achievements of 1995 and the HiPPI team also received a Laboratory Distinguished Performance award.

For more information on the decommissioning of Blue Mountain and Theta, contact the Integrated Computing Network consultants at 5-4444, option 3. Information about user training and moving work to other computers is available at *asci-training.lanl.gov* online or by writing to *consult@lanl.gov* by e-mail.

Tech Transfer Tips

The following is the first in a series of informative briefs relating to technology transfer provided by the Technology Transfer (TT) Division.

Nondisclosure Agreements

What is a nondisclosure agreement?

A nondisclosure agreement is a commitment between two parties, such as the Laboratory and a company, who agree that any proprietary information exchanged between them will be protected from further disclosure.

Note: LANL information that is "privileged information" under the Administrative Manual, Section 721 (*http://int.lanl.gov/policies/manual/admin/am721.pdf*) is treated as LANL proprietary information for purposes of nondisclosure agreements.

Why are nondisclosure agreements important?

A nondisclosure agreement is used to cover initial interactions between the University of California (the Laboratory's legal entity) and a potential partner. The nondisclosure agreement protects the proprietary information of one or both parties. There are three types of nondisclosure agreements:

- Bilateral (both parties disclose proprietary information)
- Unilateral-In (potential partner only discloses proprietary information)
- Unilateral-Out (UC/LANL only discloses proprietary information)

What are the principles of the nondisclosure agreement?

- Proprietary information is protected.
- Use of proprietary information is limited to the purpose of the agreement.
- The disclosing party controls the amount of information disclosed.
- Most nondisclosure agreements remain effective for one year from the date of execution for discussions on specified topics.
- Information must be kept in confidence for a period of time after each disclosure (generally three years). Specified time periods can be extended with an amendment.
- Proprietary information disclosed in unwritten form, such as orally, must be reduced to writing and sent to the receiving party within 14 days after the disclosure.
- Work is never conducted under a nondisclosure agreement. If work is to be performed, another type of agreement must be executed.

Employees should not sign nondisclosure agreements — TT Division has signature authority for UC/LANL nondisclosure agreements. Agreements can be implemented within one to two days after paperwork is received and approved by TT Division. Employees who need a nondisclosure agreement should contact Pat Grall of TT Division at 5-3441. For more information, go to *http://www.lanl.gov/partnerships/mechanisms/nondis.htm*.

2004 Holiday Drive

The Laboratory's 2004 Holiday Drive to collect new toys and nonperishable food items for Northern New Mexico residents is Nov. 22 through Dec. 15. For more information, contact Debbi Wersonick of the Community Relations Office (CRO) at 7-7870.